

SEQUENCE LISTING

SEQ ID NO:1

Mouse TGR18 DNA: (start and stop codons in bold)

5 GCTCCTGGCAGAGTTTTCTGTCGAGACAGAAGCCGACAGCAGAA**TGG**CACAGAATTTATC
TTGTGAGAATTGGTTGGCAACAGAGGCTATCTTGAATAAGTACTACCTCTCTGCATTTTA
TGCAATCGAGTTCATTTTTGGACTGCTTGGGAATGTCAC**TGTGGT**GTTTCGGCTACCTCTT
CTGCATGAAGAACTGGAACAGCAGCAATGTCTATCTTTTTAACCTTTCCATCTCTGACTT
TGCTTTCCTGTGCACCCTTCCCATCCTGATAAAGAGTTATGCCAATGATAAGGGGACCTA
10 TGGAGATGTTCTCTGTATAAGCAACCGATATGTGCTTCACACCAACCTCTACACCAGCAT
CCTCTTCCTCACTTTCATTAGCATGGACCGATATCTGCTCATGAAGTACCCTTTCCGAGA
ACACTTTCTACAAAAGAAGGAATTTGCCATTTTAATCTCGCTGGCTGTCTGGGCCTTAGT
GACCTTAGAAGTTCTACCCATGCTCACTTTCATCAATTCTGTCCCAAAAGAAGAGGGCAG
TAACTGCATCGACTATGCAAGTTCTGGAAACCCTGAACACAATCTCATTTACAGCCTCTG
15 CCTGACTTTGTTGGGCTTCCTAATTCCTCTCTCTGTGATGTGCTTCTTCTACTACAAGAT
GGTAGTCTTCTTAAAGAGGAGGAGCCAGCAGCAAGCAACTGCCCTGCCACTGGACAAACC
CCAACGCCTGGTGGTCTTGGCGGTTGTGATCTTCTCTATACTCTTCACACCCTATCATAT
CATGCGCAATTTGAGGATCGCCTCACGCCTGGATAGTTGGCCACAAGGATGTACACAGAA
GGCCATCAAATCTATATACACACTGACACGGCCTCTGGCCTTTCTGAACAGTGCCATCAA
20 TCCCATCTTCTACTTCCTCATGGGAGACCATTACAGAGAGATGCTGATTAGTAAGTTCAG
ACAATACTTCAAGTCCCTTACATCCTTCAGGACAT**GAG**CTGCTGGATGCAGGTCTTCACT
CAGCCAAAATGAGACACTTGATAAACAGTGCTGTGCAGTTGAGTTTTAACTAAGTAAACC
ACCATTTCTAGGCTTTAGCTTTCCACCATCCTCCAACCCCCAGGGCTGGAGTACAAGCTG
GGTCCACATGAATCAGAAGGCAGCTCTCTGTTCTGATTTTAGGTTATACCCAGAGTATGG
25 AAAAAATAAGGCATGAGAAAGCATTGACATCTTCACTTAAGAACTGAACAAAAGAGAACA
AATATTGTCAATGTTTGGACACTTAGGATCTGAAATCTTGGAATTTTAAGACCTCTTTT
TCTATCAGTGTAAGGAATACAAGATAGCTAGTTGCAAATGCTGAATGCATTTTCATCAT
TGGTCAGGTCGATAAGCGTGTTTCTGAAATAGTCTTATTTTTATTCTTGTAATATTAAAA
TTTATGTGAAAAATGAATATAATTCAATGTACAACATTAGATTTTCTATTTGAAAATTAT
30 ATTTCTTGAAAAATAACTGCTGTGCCTAAATAAATCAATATA

SEQ ID NO:2

Mouse TGR18 protein

MAQNLSCENWLATEAILNKYYLSAFYAIEFIFGLLGNTVVFGYLFCMKNWNSSNVYLFN
 LSISDFAFLCTLPILIKSYANDKGTYGDLVCISNRYVLHTNLYTSILFLTFISMDRYLLM
 KYPFREHFLQKKEFAILISLAVWALVTLEVLPLMTFINSVPKEEGSNCIDYASSGNPEHN
 5 LIYSLCLTLLGFLIPLSVMCFYYKMOVFLKRRSQQQATALPLDKPQRLVVLAVVIFSIL
 FTPYHIMRNLRIASRLDSWPQGCTQKAIKSIYTLTRPLAFLNSAINPIFYFLMGDHYREM
 LISKFRQYFKSLTSFRT

10 **SEQ ID NO:3**

Human TGR 21 DNA

ATGGAGGATCTCTTTAGCCCCTCAATTCTGCCGCCGGCGCCCAACATTTCCGTGCCCATC
 TTGCTGGGCTGGGGTCTCAACCTGACCTTGGGGCAAGGAGCCCCTGCCTCTGGGCCGCCC
 15 AGCCGCCGCGTCCGCCTGGTGTTCCTGGGGGTCACTCCTGGTGGTGGCGGTGGCAGGCAAC
 ACCACAGTGCTGTGCCGCCTGTGCGGCGGCGGGGCCCTGGGCGGGCCCCAAGCGTCGC
 AAGATGGACTTCCTGCTGGTGCAGCTGGCCCTGGCGGACCTGTACGCGTGCGGGGGCACG
 GCGCTGTCACAGCTGGCCTGGGAAGTGTGGGCGAGCCCCGCGCGGCCACGGGGGACCTG
 GCGTGCCGCTTCCTGCAGCTGCTGCAGGCATCCGGGCGGGGCGCCTCGGCCACCTCGTG
 20 GTGCTCATCGCCCTCGAGCGCCGGCGCGCGGTGCGTCTTCCGCACGGCCGGCCGCTGCCC
 GCGCGTGCCCTCGCCGCCCTGGGCTGGCTGCTGGCACTGCTGCTGGCGCTGCCCCGGCC
 TTCGTGGTGC GCGGGGACTCCCCCTCGCCGCTGCCGCCGCCGCCGCCCAACGTCCCTG
 CAGCCAGGCGCGCCCCCGGCCGCCCGCGCCTGGCCGGGGGAGCGTCGCTGCCACGGGATC
 TTCGCGCCCCTGCCGCGTGGCACCTGCAGGTCTACGCGTTCTACGAGGCCGTGCGGGC
 25 TTCGTGCGCCTGTTACGGTCCTGGGCGTCGCTTGCGGCCACCTACTCTCCGTCTGGTGG
 CGGCACCGGCCGAGGCCCCCCGCGGCTGCAGCGCCCTGGTCGGCGAGCCAGGTGAGCC
 CCTGCGCCCAGCGCGCTGCCCCGCGCCAAGGTGCAGAGCCTGAAGATGAGCCTGCTGCTG
 GCGCTGCTGTTCTGTTGGGCTGCGAGCTGCCCTACTTTGCCGCCCGGCTGGCGGCCGCGTGG
 TCGTCCGGGCCCCGCGGAGACTGGGAGGGAGAGGGCCTGTGCGCGGCGCTGCGCGTGGTG
 30 GCGATGGCCAACAGCGCTCTCAATCCCTTCGTCTACCTCTTCTTCCAGGCGGGCGACTGC
 CGGCTCCGGCGACAGCTGCGGAAGCGGCTGGGCTCTCTGTGCTGCGCGCCGAGGGAGGC
 GCGGAGGACGAGGAGGGGCCCCGGGGCCACCAGGCGCTCTACCGCCAACGCTGGCCCCAC
 CCTCATTATCACCATGCTCGGCGGGAACCGCTGGACGAGGGCGGCTTGCGCCCACCCCT
 CCGCGCCCCAGACCCCTGCCTTGCTCCTGCGAAAGTGCCTTCTAG

SEQ ID NO:4

Human TGR21 Protein:

5

MEDLFSPSILPPAPNISVPILLGWGLNLTGQGAPASGPPSRRVRLVFLGVILVVAVAGN
TTVLCRLCGGGGPWAGPKRRKMDFLLVQLALADLYACGGTALSQLAWELLGEPRAATGDL
ACRFLQLLQASGRGASAHLVVLIALERRAVRLPHGRPLPARALAALGWLLALLLALPPA
FVVRGDSPLPPPPPTSLQPGAPPAARAWPGERRCHGIFAPLPRWHLQVYAFYEAVAG
10 FVAPVTVLGVACGHLLSVWWRHRPQAPAAAAPWSASPGRAPAPSALPRAKVQSLKMSLLL
ALLFVGCELPYFAARLAAWSSGPAGDWEGEGLSAAALRVVAMANSALNPFVYLFFQAGDC
RLRRQLRKRLGSLCCAPQGGAEDEEGPRGHQALYRQRWPHPHYHHARREPLDEGGLRPPP
PRPRPLPCSCESAF

15

SEQ ID NO:5

Human TGR62 DNA (start and stop codons in bold)

20

TGACCTTCTTCATCATTTGATGTG**ATG**CCAGATACTAATAGCACAATCAATTTATCACTA
AGCACTCGTGTTACTTTAGCATTTTTTATGTCCTTAGTAGCTTTTGCTATAATGCTAGGA
AATGCTTTGGTCATTTTAGCTTTTGTGGTGGACAAAAACCTTAGACATCGAAGTAGTTAT
TTTTTTCTTAACTTGGCCATCTCTGACTTCTTTGTGGGTGTGATCTCCATTCTTTGTAC
ATCCCTCACACGCTGTTCTGAATGGGATTTTGGAAAGGAAATCTGTGTATTTTGGCTCACT
ACTGACTATCTGTTATGTACAGCATCTGTATATAACATTGTCCTCATCAGCTATGATCGA
25 TACCTGTCAGTCTCAAATGCTGTGTCTTATAGAACTCAACATACTGGGGTCTTGAAGATT
GTTACTCTGATGGTGGCCGTTTGGGTGCTGGCCTTCTTAGTGAATGGGCCAATGATTCTA
GTTTCAGAGTCTTGAAGGATGAAGGTAGTGAATGTGAACCTGGATTTTTTTTCGGAATGG
TACATCCTTGCCATCACATCATCTTGGGAATTCGTGATCCCAGTCATCTTAGTCGCTTAT
TTCAACATGAATATTTATTGGAGCCTGTGGAAGCGTGATCATCTCAGTAGGTGCCAAAGC
30 CATCCTGGACTGACTGCTGTCTCTTCCAACATCTGTGGACACTCATTCAGAGGTAGACTA
TCTTCAAGGAGATCTCTTTCTGCATCGACAGAAGTTCCTGCATCCTTTCATTTCAGAGAGA
CAGAGGAGAAAGAGTAGTCTCATGTTTTCTCAAGAACCAAGATGAATAGCAATACAATT
GCTTCCAAAATGGGTTCCTTCTCCCAATCAGATTCTGTAGCTCTTCACCAAAGGGAACAT
GTTGAACTGCTTAGAGCCAGGAGATTAGCCAAGTCACTGGCCATTCTCTTAGGGGTTTTT

GCTGTTTGCTGGGCTCCATATTCTCTGTTCAACAATTGTCCTTTCATTTTATTCCTCAGCA
 ACAGGTCCTAAATCAGTTTGGTATAGAATTGCATTTTGGCTTCAGTGGTTCAATTCCTTT
 GTCAATCCTCTTTTGTATCCATTGTGTCAACAAGCGCTTCAAAGGCTTTCTTGAAAATA
 TTTTGTATAAAAAAGCAACCTCTACCATCACAAACACAGTCGGTCAGTATCTTCT**TAAAGA**
 5 CAATTTTCTCACCTCTGTAAATTTTAGTCTCAATCTCACCTAAATGAATCAGGTCTGCCC
 TTTATC

SEQ ID NO:6

10 Human TGR62 protein

MPDTNSTINLSLSTRVTLAFFMSLVAFAIMLGNALVILAFVVDKNLRHRSSYFFLNLAIS
 DFFVGVISIPLYIPHTLFEWDFGKEICVFWLTDDYLLCTASVYNIVLISYDRYLSVSNV
 SYRTQHTGVLKIVTLMVAVWVLAFLVNGPMILVSESWKDEGSECEPGFFSEWYILAITSF
 15 LEFVIPVILVAYFNMNIYWSLWKRDHLSRCQSHPGLTAVSSNICGHSFRGRLSSRRSLSA
 STEVPASFHSERQRRKSSLMFSSRTKMNSNTIASKMGFSFSQSDSVALHQREHVELLRARR
 LAKSLAILLGVFVAVCWAPYSLFTIVLSFYSSATGPKSVWYRIAFWLQWFNSFVNPLLYPL
 CHKRFQKAFLKIFCIKKQPLPSQHSRSVSS

SEQ ID NO:7

Human TGR130.1 DNA (start and stop codons in bold):

GCCTCCTTCCTAGAGCCTTCAGTGGCCTCTGCCAGTCTGGCAGACACTTGCAGACCTCTC
 25 TTCTCAGCACCACCAATCTCTGATGCCCTGCG**ATG**CCCACTCAATACTTCTGCCTCTC
 CACCCACATTCTTCTGGGCCAATGCCTCCGGAGGCAGTGTGCTGAGTGCTGATGATGCTC
 CGATGCCTGTCAAATTCCTAGCCCTGAGGCTCATGGTTGCCCTGGCCTATGGGCTTGTGG
 GGGCCATTGGCTTGCTGGGAAATTTGGCGGTGCTGTGGGTACTGAGTAACTGTGCCCGGA
 GAGCCCCCTGGCCACCTTCAGACACCTTCGTCTTCAACCTGGCTCTGGCGGACCTGGGAC
 30 TGGCACTCACTCTCCCCTTTTGGGCAGCCGAGTCGGCACTGGACTTTCACTGGCCCTTCG
 GAGGTGCCCTCTGCAAGATGGTTCTGACGGCCACTGTCCTCAACGTCTATGCCAGCATCT
 TCCTCATCACAGCGCTGAGCGTTGCTCGCTACTGGGTGGTGGCCATGGCTGCGGGGCCAG
 GCACCCACCTCTCACTCTTCTGGGCCCGAATAGCCACCCTGGCAGTGTGGGCGGCGGCTG
 CCCTGGTGACGGTGCCACAGCTGTCTTCGGGGTGGAGGGTGAGGTGTGTGGTGTGCGCC

TTTGCCTGCTGCGTTTCCCCAGCAGGTACTGGCTGGGGGCCTACCAGCTGCAGAGGGTGG
 TGCTGGCTTTTCATGGTGCCCTTGGGCGTCATCACCACCAGCTACCTGCTGCTGCTGGCCT
 TCCTGCAGCGGCGGCAACGGCGGCGGCAGGACAGCAGGGTCGTGGCCCGCTCTGTCCGCA
 TCCTGGTGGCTTCCTTCTTCCTCTGCTGGTTTCCCAACCATGTGGTCACTCTCTGGGGTG
 5 TCCTGGTGAAGTTTGACCTGGTGCCCTGGAACAGTACTTTCTATACTATCCAGACGTATG
 TCTTCCCTGTCACTACTTGCTTGGCACACAGCAATAGCTGCCTCAACCCTGTGCTGTACT
 GTCTCCTGAGGCGGGAGCCCCGGCAGGCTCTGGCAGGCACCTTCAGGGATCTGCGGTCTGA
 GGCTGTGGCCCCAGGGCGGAGGCTGGGTGCAACAGGTGGCCCTAAAGCAGGTAGGCAGGC
 GGTGGGTCTGCAAGCAACCCCCGGGAGAGCCGCCCTTCTACCCCTGCTCACCAACCTGGACA
 10 GAGGGACACCCGGGT**GA**AGGGCGCAAGCTGAACACACTCCTCTTTCTGAGATCCACCAAG
 TGTAGGATCCTTGAGTCCTGGGGAGAAGCTGCCCTCTCTGCCAGGCTGCAGTGCCCTCAG
 GGAAAAGTCTGATCTTTGATCCCCAACTCTGGGTGTGGTGAATGGGGGAGGCGGGGGCTC
 AGATCAGAGCTGGATGTGACAAAGCTTAAGTCTTTATTTGGAGATGGGAAAGAAGAGGAT
 CTGAGAATAAACCTCTGGATTATCC

15

SEQ ID NO:8

TGR130.1 Protein

20 MPTLNTSASPPTFFWANASGGSVLSADDAPMPVKFLALRLMVALAYGLVGAIGLLGNLAV
 LWVLSNCARRAPGPPSDTFVFNALADLGLALTLPFWAAESALDFHWPFGGALCKMVLTA
 TVLNVYASIFLITALSVARYWVWAMAAGPGTHLSLFWARIATLAVWAAAALVTVPTAVFG
 VEGEVCVRLCLLRFPSTRYWLGAQQLQRVVLA FMVPLGVITTSYLLLLLAFLQRRQRRQD
 SRVVARSVRILVASFFLCWFPNHVVTLWGVLVKFDLVPWNSTFYTIQTYVFPVTTCLAHS
 25 NSCLNPVLYCLLRREPRQALAGTFRDLRSRLWPQGGGWVQQVALKQVGRRWVASNPRESR
 PSTLLTNLDRGTPG

SEQ ID NO:9

30 TGR 130.2 DNA (start and stop codons in bold)

GCCTCCTTCCTAGAGCCTTCAGTGGCCTCTGCCAGTCTGGCAGACACTTGCAGACCTCTC
 TTCTCAGCACCACCAATCTCTGATGCCCTGCG**AT**GCCACACTCAATACTTCTGCCTCTC
 CACCCACATTCTTCTGGGCCAATGCCTCCGGAGGCAGTGTGCTGAGTGCTGATGATGCTC

SEQ ID NO:11

Human TGR213 DNA

5

ATGGAGTCCTCACCCATCCCCCAGTCATCAGGGAACCTTCCACTTTGGGGAGGGTCCCT
CAAACCCCAGGTCCCTCTACTGCCAGTGGGGTCCCGGAGGTGGGGCTACGGGATGTTGCT
TCGGAATCTGTGGCCCTCTTCTTCATGCTCCTGCTGGACTTGACTGCTGTGGCTGGCAAT
GCCGCTGTGATGGCCGTGATCGCCAAGACGCCCTGCCCTCCGAAAATTTGTCTTCGTCTTC
10 CACCTCTGCCTGGTGGACCTGCTGGCTGCCCTGACCCTCATGCCCCTGGCCATGCTCTCC
AGCTCTGCCCTCTTTGACCACGCCCTCTTTGGGGAGGTGGCCTGCCGCCTCTACTTGTTT
CTGAGCGTGTGCTTTGTCAGCCTGGCCATCCTCTCGGTGTCAGCCATCAATGTGGAGCGC
TACTATTACGTAGTCCACCCCATGCGCTACGAGGTGCGCATGACGCTGGGGCTGGTGGCC
TCTGTGCTGGTGGGTGTGTGGGTGAAGGCCTTGGCCATGGCTTCTGTGCCAGTGTTGGGA
15 AGGGTCTCCTGGGAGGAAGGAGCTCCCAGTGTCCCCCAGGCTGTTCACTCCAGTGGAGC
CACAGTGCCTACTGCCAGCTTTTTGTGGTGGTCTTTGCTGTCCTTTACTTTCTGTTGCC
CTGCTCCTCATACTTGTGGTCTACTGCAGCATGTTCCGAGTGGCCCGCGTGGCTGCCATG
CAGCACGGGCCGCTGCCACGTGGATGGAGACACCCCGGCAACGCTCCGAATCTCTCAGC
AGCCGCTCCACGATGGTCACCAGCTCGGGGGCCCCCAGACCACCCACACCGGACGTTT
20 GGGGGAGGGAAAGCAGCAGTGGTTCTCCTGGCTGTGGGGGGACAGTTCCTGCTCTGTTGG
TTGCCCTACTTCTCTTTCCACCTCTATGTTGCCCTGAGTGCTCAGCCCATTTCAACTGGG
CAGGTGGAGAGTGTGGTCACCTGGATTGGCTACTTTTGCTTCACTTCCAACCCTTTCTTC
TATGGATGTCTCAACCGGCAGATCCGGGGGGAGCTCAGCAAGCAGTTTGTCTGCTTCTTC
AAGCCAGCTCCAGAGGAGGAGCTGAGGCTGCCTAGCCGGGAGGGCTCCATTGAGGAGAAC
25 TTCCTGCAGTTCCTTCAGGGGACTGGCTGTCCTTCTGAGTCCTGGGTTTCCCGACCCCTA
CCCAGCCCCAAGCAGGAGCCACCTGCTGTTGACTTTCGAATCCCAGGCCAGATAGCTGAG
GAGACCTCTGAGTTCCTGGAGCAGCAACTCACCAGCGACATCATCATGTCAGACAGCTAC
CTCCGTCCTGCCGCCTCACCCCGGCTGGAGTCATGA

30

SEQ ID NO:12

Human TGR213 protein

MESSPI PQSSGNSSTLGRVPQTPGPSTASGVPEVGLRDVASESVALFFMLLLDLTAVAGN
AAVMAVIAKTPALRKVFVVFHLLCLVDLLAALTLMPLAMLSSSALFDHALFGEVACRLYL
LSVCFVSLAILSVSAINVERYYYVHVPMRYEVRMTLGLVASVLVGWVKALAMASVPVLG
RVSWEEGAPSVPPGCSLQWSHSAYCQLFVVVFAVLYFLLPLLLILVVYCSMFRVARVAAM
5 QHGPLPTWMETPRQRSESLSSRSTMVTSSGAPQTPHRTFGGGKAAVVLLAVGGQFLLCW
LPYFSFHLVALSAQPISTGQVESVVTWIGYFCFTSNPFFYGCLNRQIRGELSKQFVCFF
KPAPEEELRLPSREGSIEENFLQFLQGTGCPSESWSRPLPSPKQEPAPVDFRIPGQIAE
ETSEFLEQQLTSDIIMSDSYLRPAASPRLES

SEQ ID NO:13

human novel edg receptor (hEDG) DNA:

ATGGAGTCGGGGCTGCTGCGGCCGGCGCCGGTGAGCGAGGTCATCGTCCTGCATTACAAC
15 TACACCGGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCC
GTGGTGTGCTGGCGGTGTGCGCCTTCATCGTGCTAGAGAATCTAGCCGTGTTGTTGGTG
CTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTCTGCTCCTGGGCAGCCTCACGTTG
TCGGATCTGCTGGCAGGCGCCGCCTACGCCGCCAACATCCTACTGTGCGGGCCGCTCACG
CTGAAACTGTCCCCCGCGCTCTGGTTTCGCACGGGAGGGAGGCGTCTTCGTGGCACTCACT
20 GCGTCCGTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTCACCATGGCGCGCAGG
GGGCCCGCGCCCGTCTCCAGTCGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCTGGGGC
GTGTCGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGCTGGAATTGCCTGGGTGCGCTGGAC
GCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGCGTGCTCGCC
TTCGTGGGCATCCTGGCCGCTATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGC
25 GCCAACGCGCGGCGCCTGCCGGCACGGCCCGGGACTGCGGGGACCACCTCGACCCGGGCG
CGTCGCAAGCCGCGCTCGCTGGCCTTGCTGCGCACGCTCAGCGTGGTGCTCCTGGCCTTT
GTGGCATGTTGGGGCCCCCTCTTCTGCTGCTGTTGCTCGACGTGGCGTGCCCGGCGCGC
ACCTGTCTGTACTCCTGCAGGCCGATCCCTTCCTGGGACTGGCCATGGCCAACCTCACTT
CTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTG
30 GTCTGCTGCGGACGCCACTCCTGCGGCAGAGACCCGAGTGGCTCCCAGCAGTCGGCGAGC
GCGGCTGAGGCTTCCGGGGGCTGCGCCGCTGCCTGCCCCGGGCCTTGATGGGAGCTTC
AGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGGCTGGACACCAGCGGCTCCACAGGC
AGCCCCGGTGACCCACAGCCGCCCGGACTCTGGTATCAGAACCGGCTGCAGACTGA

SEQ ID NO:14

Human novel edg receptor protein:

5 MESGLLRPAPVSEVIVLHYNITGKLRGARYQPGAGLRADAVVCLAVCAFIIVLENLAVLLV
LGRHPRFHAPMFLLLGSLTSLDLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT
ASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAGVSLLLGLLPALGWNCLGRLD
ACSTVLPLYAKAYVLFVLAFAVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA
RRKPRSLALLRTL SVLLAFVACWGPFLLLLLDVACPARTCPVLLQADPFLGLAMANSI
10 LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCCLPPGLDGSF
SGSERSSPQRDGLDTSGSTGSPGAPTAARTLVSEPAAD

SEQ ID NO:15

15 TGR92 DNA

ATGGAACCTTCATAACCTGAGCTCTCCATCTCCCTCTCTCTCCTCCTCTGTTCTCCCTCCC
TCCTTCTCTCCCTCACCCTCCTCTGCTCCCTCTGCCTTTACCACTGTGGGGGGGTCTCT
GGAGGGCCCTGCCACCCACCTCTTCCTCGCTGGTGTCTGCCTTCCTGGCACCAATCCTG
20 GCCCTGGAGTTTGTCTGGGCTGGTGGGGAACAGTTTGGCCCTCTTCATCTTCTGCATC
CACACGCGGCCCTGGACCTCCAACACGGTGTTCTGGTCAGCCTGGTGGCCGCTGACTTC
CTCCTGATCAGCAACCTGCCCTCCGCGTGGACTACTACCTCCTCCATGAGACCTGGCGC
TTTGGGGCTGCTGCCTGCAAAGTCAACCTCTTCATGCTGTCCACCAACCGCACGGCCAGC
GTTGTCTTCCTCACAGCCATCGCACTCAACCGCTACCTGAAGGTGGTGCAGCCCCACCAC
25 GTGCTGAGCCGTGCTTCCGTGGGGCAGCTGCCCGGGTGGCCGGGGGACTCTGGGTGGGC
ATCCTGCTCCTCAACGGGCACCTGCTCCTGAGCACCTTCTCCGGCCCCCTCCTGCCTCAGC
TACAGGGTGGGCACGAAGCCCTCGGCCTCGCTCCGCTGGCACCAGGCACTGTACCTGCTG
GAGTTCTTCCTGCCACTGGCGCTCATCCTCTTTGCTATTGTGAGCATTGGGCTCACCATC
CGGAACCGTGCTGTTGGGCGGGCAGGCAGGCCCGCAGAGGGCCATGCGTGTGCTGGCCATG
30 GTGGTGGCCGTCTACACCATCTGCTTCTTGCCAGCATCATCTTTGGCATGGCTTCCATG
GTGGCTTTCTGGCTGTCCGCTGCCGATCCCTGGACCTCTGCACACAGCTCTTCCATGGC
TCCCTGGCCTTCACCTACCTCAACAGTGTCTGGACCCCGTGCTCTACTGCTTCTCTAGC
CCCAACTTCCTCCACCAGAGCCGGGCCTTGCTGGGCCTCACGCGGGGCCGGCAGGGCCCA
GTGAGCGACGAGAGCTCCTACCAACCCTCCAGGCAGTGGCGCTACCGGGAGGCCTCTAGG

AAGGCGGAGGCCATAGGGAAGCTGAAAGTGCAGGGCGAGGTCTCTCTGGAAAAGGAAGGC
TCCTCCCAGGGC

5 **SEQ ID NO:16**

TGR92 protein

MELHNLSSPSPSLSSSVLPSPSFSPSPSSAPSAFTTVGGSSGGPCHPTSSSLVSAFLAPIL
ALEFVLGLVGNSLALFIFCIHTRPWTSTNTVFLVSLVAADFLLISNLPLRVDYLLHETWR
10 FGAAACKVNLFMLSTNRTASVVFLTAIALNRYLKVVQPHHVLSRASVGAAARVAGGLWVG
I L L L N G H L L L S T F S G P S C L S Y R V G T K P S A S L R W H Q A L Y L L E F F L P L A L I L F A I V S I G L T I
R N R G L G G Q A G P Q R A M R V L A M V V A V Y T I C F L P S I I F G M A S M V A F W L S A C R S L D L C T Q L F H G
S L A F T Y L N S V L D P V L Y C F S S P N F L H Q S R A L L G L T R G R Q G P V S D E S S Y Q P S R Q W R Y R E A S R
K A E A I G K L K V Q G E V S L E K E G S S Q G

15

SEQ ID NO:17

Gene specific primer for 5' RACE

20 GGTAGAACTTCTAAGGTCCTAAGGCCAG

SEQ ID NO:18

nested Gene specific primer for 5' RACE

25

AAGTTCTCGGACAGGGTACTTCATGAGCAG

SEQ ID NO:19

30 Gene specific primer for 3' RACE

CCATCTCTGACTTTGCTTTCCTGTGCACCC

SEQ ID NO:20

nested Gene specific primer for 3' RACE

GCAACCGATATGTGCTTCACACCAACCTC

5

SEQ ID NO:21

Gene specific primer for 5'RACE

10 GAGAGTGACCACATGGTTGGGAAACCAGC

SEQ ID NO:22

nested Gene specific primer for 5' RACE

15

GCCAGCACCACCCTCTGCAGCTGGTA

SEQ ID NO:23

20 Gene specific primer for 3' RACE

CCTTCAGACACCTTCGTCTTCAACCTGGC

SEQ ID NO:24

nested Gene specific primer for 3' RACE

GCAGCCGAGTCGGCACTGGACTTTCAC

30

SEQ ID NO:25

primer for amplification of human TGR62

TGACCTTCTTCATCATTTGATGTG

SEQ ID NO:26

primer for amplification of human TGR62

5

GATAAAGGGCAGACCTGATTCA